

January 29, 2013

Amesbury Conservation Commission and Mr. John Lopez  
Amesbury Conservation Commission  
62 Friend Street  
Amesbury, MA 01913

RE: Bailey's Pond Notice of Intent Peer Review

Dear Mr. Lopez and Members of the Commission:

BSC Group, Inc. (BSC) is pleased to submit this wetland resources peer review report on the proposed Village at Bailey's Pond (Route 150 and Summit Avenue) Notice of Intent (NOI). Oak Consulting Group (OCG) and Hughes Environmental Consulting (HEC) have submitted revised NOI materials on behalf of Fafard Real Estate and Development Corporation.

This report analyzes project information provided in the project NOI (filed 4/15/2010), in revised supporting materials (dated 10/27/2011 and 1/14/2013) and on project plans titled The Village At Bailey's Pond (Site Plan), dated 9/30/2011 and revised 12/07/2012. The purpose of this assessment is to evaluate project compliance with the Massachusetts Wetlands Protection Act (M.G.L. c. 131, s. 40) (WPA) and associated regulations (310 CMR 10.00 et al.) and the City of Amesbury Wetland Protection Ordinance and associated regulations (Ordinance). The delineation of Bordering Vegetated Wetlands (BVW) was evaluated according to the MA Department of Environmental Protection "Handbook for Delineating Bordering Vegetated Wetlands Under the MA Wetlands Protection Act". Regulated resource areas on the subject property include BVW and associated Buffer Zone, Bank, Isolated Vegetated Wetland (IVW), Land Under Water, and Riverfront Area (RA). Regulated resources other than BVW were assessed according to definitions in the Ordinance and in the state WPA regulations.

## **RESOURCE AREA DELINEATION PEER REVIEW**

### **Bordering Vegetated Wetland, Isolated Vegetated Wetland and Riverfront Area**

BSC initially walked the flagged BVW and RA lines with Sean Malone of OCG, at which time, BSC noted that due to beaver activity, some significant changes to the RA line would be necessary, as well as some minor changes (unrelated to beavers) to the BVW line. An un-flagged IVW was noted. On 8/7/2012, BSC again walked the RA and wetland boundary lines with Tom Hughes of HEC, who had made some of the necessary changes to flag locations. While in the field, BSC and Tom Hughes agreed upon revised locations for additional flags. HEC then asked the applicant's surveyors to return later to survey them and add them to the site plan. The site plan revised on 12/7/2012 includes all of the requested changes, as well as requested changes to the 100' and 200' RA lines.

### **Rare and Endangered Species, Vernal Pools, Isolated Vegetated Wetland**

The NOI materials include a MA Natural Heritage and Endangered Species Program (NHESP) 2008 Priority Habitat and Estimated Habitat map (NHESP map) that shows no

33 Waldo Street  
Worcester, MA 01608

Tel: 508-792-4500  
800-288-8123  
Fax: 508-792-4509

[www.bscgroup.com](http://www.bscgroup.com)

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Priority or Estimated Habitat polygon occurring on the site of the proposed project. Other than the heavily impacted IVW, BSC did not note any area that had the potential to function as a vernal pool. Given the heavy ATV traffic that runs through the IVW, it is unlikely that this area functions as a vernal pool in its current state.

### **Land Under Water and Bank**

Land Under Water occurs down-gradient from Bank under the Pond and the perennial stream. Bank occurs down-gradient of the BVW line along the Pond edge. Pond Bank is not flagged since it is down-gradient of BVW, and the buffer zone associated with Pond Bank is contained within the BVW 100' buffer zone. Bank of the river is either coincident with the RA Mean Annual High Water Line (MAHW), or down-gradient of RA MAHW, and thus was not flagged separately from the RA MAHW.

### **NOI, SITE PLAN AND SUPPLEMENTAL MATERIALS PEER REVIEW**

BSC provides the following comments with regard to the project NOI, Site Plan and supplemental materials:

1. The applicant should submit an updated/revised NOI form (WPA Form 3) with updated impact numbers, given the substantial changes to the resource area boundaries. The 10/27/2011 cover letter from Sean Malone (McFarland Johnson) to the Amesbury Conservation Commission (ACC) provided tables with impact numbers broken down by resource area and type of impact. BSC recommends that updated/revised tables of this sort be provided for each of the Alternatives that are examined in the Alternatives Analysis (see below). Additionally, providing impact avoidance, minimization, and mitigation numbers in this type of format for each of the Alternatives is also recommended, as it will facilitate evaluation and comparison of the Alternatives with regard to their comparative impacts to RA and other resource areas.

2. Riverfront Area Status: The Applicant has proposed that the RA on the project site qualifies as previously developed and degraded riverfront under 310 CMR 10.58(5), specifically referencing their opinion that the site meets the "absence of topsoil" and/or "abandoned dumping grounds" criteria. BSC is of the opposite opinion, and does not believe that the RA on the project site meets MA DEP's criteria (based on personal communication, MA DEP NERO, 1/23/2013) for "abandoned dumping grounds" as the debris in the RA generally consists of scattered items that can be removed fairly easily. MA DEP considers an RA to meet the qualification for abandoned dumping grounds if the site is substantially and significantly compromised/degraded, such as by having extensive and large blocks of material that require substantial heavy machinery removal efforts, and that cover significant areas of land surface, such as in a bona fide junkyard.

When conducting site visits to the project site, BSC did not consider the possibility that the RA on the site would qualify for "absence of topsoil" status and did not examine the RA for "absence of topsoil", as the RA on the site generally functions at a higher level and is more heavily vegetated than RA's on other sites that BSC is aware of, that have failed to meet the "absence of topsoil" criteria when reviewed by MA DEP. BSC refers the Applicant to the 596 Lowell Street Superseding Order of Conditions (SOC) for MA DEP NERO File #219-642, issued on December 29, 1999 in this regard.



The RA on the project site is generally heavily vegetated, with extensive forested land. Although topsoil may have been stripped from all or part of the RA in the past, it is highly unlikely that a nascent topsoil has not started to develop where vegetation, even sparse vegetation, has established itself. Where new topsoil, even in the smallest amounts, has begun to form, it is BSC's experience that MA DEP tends not to grant "absence of topsoil" status. Where RA is vegetated and has some level of topsoil development, it is BSC's experience that MA DEP does not tend to consider the RA to be degraded. It is BSC's experience that MA DEP tends to reserve the term "degraded" for severely impacted RA's that have pavement or its close equivalent on the ground surface, and a substantive absence of vegetation. The reasoning behind this is that a vegetated RA with an emerging topsoil is providing RA function, and will, over time, continue to develop further capacity to provide RA function. It is BSC's experience that status as "degraded RA" tends to be reserved for RA's, or portions of RA's, that are paved or function at a level that is close to pavement function. In the past (such as identified in the SOC cited above), where a portion of the RA is paved, only the actual footprint of the paved area has been counted as "degraded" by MA DEP, and the remainder of the RA has been excluded from the "degraded" status. Thus, the standard provisions of 310 CMR 10.58 would apply on the project site to all areas of RA that are not paved or functioning at a level similar to pavement. Thus the Alternatives Analysis and "no significant adverse impact" sections of the RA regulations would apply to the RA on the project site, along with the other standard RA provisions. Should the Applicant wish to discuss this issue on the project site where soils can be examined, BSC is happy to do so.

3. Given that the project site does not qualify as previously developed and degraded RA, the applicant is required to submit an RA Alternatives Analysis per 10.58(4), and should closely follow the methodology outlined in the regulations:

...the applicant shall prove by a preponderance of the evidence that there are no practicable and substantially equivalent economic alternatives to the proposed project with less adverse effects on the interests identified in M.G.L. c. 131 s. 40 and that the work, including proposed mitigation, will have no significant adverse impact on the riverfront area to protect the interests identified in M.G.L. c. 131 s. 40.

(c) Practicable and Substantially Equivalent Economic Alternatives. There must be no practicable and substantially equivalent economic alternative to the proposed project with less adverse effects on the interest identified in M.G.L. c. 131 s. 40.

1. Definition of Practicable. An alternative is practicable and substantially equivalent economically if it is available and capable of being done after taking into consideration costs, existing technology, proposed use, and logistics, in light of overall project purposes. Available and capable of being done means the alternative is obtainable and feasible. Project purposes shall be defined generally (e.g. single family home, residential subdivision, expansion of a commercial development). ***The alternatives analysis may reduce the scale of the activity or the number of lots available for development***, consistent with the project purpose and proposed use...Transactions shall not be arranged to circumvent the intent of alternatives analysis review. The four factors to be considered are:

a. Costs, and whether such costs are reasonable or prohibitive to the owner...Cost includes expenditures for construction, landscaping, and transaction expenses. ***Cost does not include anticipated profits*** after the project purpose is achieved or expenditures to achieve the project purpose



prior to receiving an order with the exception of land acquisition costs incurred prior to August 7, 1996. In taking costs into account, the issuing authority shall be guided by these principles:

i. The cost of an alternative must be reasonable for the project purpose, and cannot be prohibitive.

ii. ***Higher or lower costs taken alone will not determine whether an alternative is practicable.*** An alternative for proposed work in the riverfront area must be a practicable and substantially equivalent economic alternative (i.e. will achieve the proposed use and project purpose from an economic perspective).

c. The proposed use. This term is related to the concept of project purpose...In the context of projects where the purpose implies a business component, such as residential subdivision, commercial, and industrial projects, the proposed use typically requires economic viability. ***Practicable and substantially equivalent economic alternatives include alternatives which are economically viable for the proposed use from the perspective of site location, project configuration within a site, and the scope of the project.***

2. Scope of Alternatives. *The applicant is referred to this section of the regulations to determine the scope of the alternatives analysis. The scope is in part dependent upon the date of purchase of the property, as well as the project purpose, and may include consideration of offsite alternatives, depending in part upon date of purchase of property.*

3. Evaluation of Alternatives. The applicant shall demonstrate that there are no practicable and substantially equivalent economic alternatives...within the scope of alternatives...with less adverse effects on the interests identified in M.G.L. c.131 s.40. The applicant shall submit information to describe sites and the work both for the proposed location and alternative site locations and configurations sufficient for a determination by the issuing authority under 310 CMR 10.58(4) (d). The level of detail of information shall be commensurate with the scope of the project and the practicability of alternatives. ***..The purpose of evaluating project alternatives is to locate activities so that impacts to the riverfront area are avoided to the extent practicable.*** Projects within the scope of alternatives must be evaluated to determine whether they are practicable. ***As much of a project as feasible shall be sited outside the riverfront area...***If there would be no less adverse effects on the interests identified in M.G.L. c. 131 s. 40, the proposed project rather than a practicable alternative shall be allowed, but the criteria...for determining no significant adverse effect must still be met. ***If there is a practicable and substantially equivalent economic alternative with less adverse effects, the proposed work shall be denied...***

(d) No Significant Adverse Impact. The work, including proposed mitigation measures, must have no significant adverse impact on the riverfront area to protect the interests identified in M.G.L. c. 131 s. 40. *The applicant is referred to this section to identify the thresholds for significant adverse impacts.*

BSC specifically refers the Applicant to the sections of the regulations listed above that are in both bold and italics. The Applicant should prepare conceptual site plans for Alternatives that would propose project footprints that avoid impacting the RA to the greatest extent possible. This is likely to require shifting roadway alignments out of the RA, and removing some building footprints, grading and stormwater features from the RA. **An Alternatives Analysis that fully complies with WPA regulations will include alternatives that shift**



**building, grading, stormwater, and roadway footprints out of the RA on the site. Depending on the purchase date of the property, the Applicant may or may not need to consider offsite alternatives in their alternatives analysis.**

4. Ordinance-regulated Isolated Vegetated Wetland (IVW): The Applicant cites Ordinance section 460-3, exemption (5) for the IVW on the site. BSC defers to the ACC with regard to the decision as to whether the IVW on the site qualifies for this exemption, as this determination will depend, in part, on past precedent and ACC's interpretation of their own Ordinance. BSC notes that the proposed restoration activities for the IVW are likely to enhance the ecological function of the IVW, and could be included as part of a mitigation plan for the site. BSC notes that mitigation should be developed in the context of a plan to *first* avoid resource impacts, *then* minimize resource impacts, and *at the last stage* of the planning process, mitigate for resource impacts that are allowable under state and local regulations and have been avoided and minimized to the greatest extent possible. BSC understands, based on a phone discussion with Tom Hughes (1/28/2013), that more specific planting plans and species lists would be developed for the proposed wetland restoration, should the applicant receive approval to proceed in this regard. BSC supports the development of these more specific wetland restoration plans and lists, should ACC determine that IVW wetland restoration is an advisable part of the overall project resource mitigation plan. Due to this plan to develop greater detail at a later stage, BSC will not provide specific comments on the details of wetland restoration for the IVW at this time, as it would be premature.

5. Ordinance and Associated Regulations Requirements. In addition to the need to evaluate the proposed project for compliance with WPA RA regulations, as discussed above, the Applicant should provide additional information that evaluates the various project Alternatives relative to the Ordinance and associated regulations, and demonstrates compliance with the Ordinance and associated regulations. Specifically, the Ordinance requires the Applicant to address Section 460-5 B: Proof. This section of the Ordinance also **requires an Alternatives Analysis, and does so with regard to all regulated resource areas, not just the RA.** Under this provision, the Applicant should develop Alternatives that remove impacts from Buffer Zones (BZs) to the greatest extent possible, so that the project complies with item (5) under the Proof section of the Ordinance, Part 1, Section 12.0 Burden of Proof, and Part 2, Section 21.7 Structures of the regulations. These regulations require evaluation of Alternatives in order to maximize *first*: impact avoidance, *second*: impact minimization, and *third*: impact mitigation. BSC notes that the current Site Plans propose:

- sewer crossing within RA and BVW
- sewer crossing and a small amount of grading within the 25' BZ
- driveway footprint, stormwater features, grading, a sewer crossing, and path within the 50' BZ.
- significant amount of structures, pavement, stormwater features, grading within the 100' BZ. The outer 50' of BZ are heavily developed.
- sewer crossing, path, stormwater features within the inner 100' of RA
- structures, pavement/roadway, stormwater features, grading, path within the outer 100' - 200' of RA

As mentioned previously, BSC recommends that these impacts be quantified and presented in table format, so that comparison between Alternatives, and evaluation relative to state and local performance standards and regulations, is facilitated.





It should be noted that no special provisions are indicated in the Ordinance for the allowance of stormwater structures within RA. Therefore, it appears that stormwater structures are regulated the same way that any other structure is regulated under the Ordinance. Additionally, there are no exemptions for construction of new utilities, or for footpaths. The Applicant should address these within the context of the Ordinance and associated regulations.

The Applicant should address Part 1, Section 12.0 of the Ordinance regulations, regarding, "...significant or cumulative detrimental effect upon Resource Areas or their wetland values protected herein."

6. Proposed Project Impacts. Due to the need for an Alternatives Analysis (per Ordinance and associated regulations and WPA regulations), and our recommendation for provision of updated impact tables (quantifying the impacts listed above, by resource area, for each Alternative), BSC finds that it is premature to assess proposed project impacts beyond the general comments provided. These impacts should be reviewed and discussed in the context of an Alternatives Analysis that is in compliance with WPA regulations and the Ordinance and associated regulations, and that is based on updated impact and mitigation tables. This will allow the Alternatives to be assessed to determine the Alternative with the least significant adverse impact that is practicable, and substantially equivalent economically (as defined in the WPA regulations and Ordinance and associated regulations).

7. Proposed Project Mitigation. It is BSC's opinion that a thorough Alternatives Analysis (per Ordinance and associated regulations and WPA regulations) would increase significantly the amount of resource impact avoidance and minimization that is possible for this project. Only after these measures have been maximized is it possible to evaluate proposed mitigation measures, as mitigation options may shift with a shifting project impact footprint. The Applicant should provide quantified mitigation numbers in table format, for each of the Alternatives, and for each impacted resource area, so that the Alternatives can be assessed to determine the Alternative with the least significant adverse impact that is practicable, and substantially equivalent economically (as defined in the WPA regulations and Ordinance and associated regulations). Proposed mitigation should be discussed and evaluated following selection of the project Alternative that provides the least adverse impact while remaining practicable and substantially economically equivalent, and thus cannot be evaluated fully at this time.

Following selection of a preferred Alternative, and following impact avoidance and minimization efforts within that Alternative, the Applicant may propose mitigation measures along the lines of those proposed in the current project documents. Should mitigation be necessary under the preferred Alternative (and there may be an Alternative that requires no or very little mitigation), BSC concurs with the Applicant that the following mitigation ideas generally represent opportunities to enhance ecological functioning on the site:

- Restoration of the IVW
- Restoration of ATV-impacted Bank
- Invasive species control
- Enhancement/Supplementation of impacted soils (specific locations to be determined in consultation with the ACC) and planting of high-value native species
- Restoration/stabilization of eroded areas
- Removal of debris, trash, paintball bridges and yard waste



The details (plans, cross-sections, text, tables, etc.) of how, where and to what extent any of these mitigation measures are proposed should be provided for each Alternative in the Alternatives Analysis. More specific peer review comments are appropriate following provision of the Alternatives Analysis and a more detailed level of information.

8. Proposed Stream Crossing: Any proposal for a stream crossing, such as the proposed sewer crossing, should include detailed plans & cross-sections (existing conditions, proposed conditions, and eventually, as-built conditions), and text (some of which has been provided) describing the construction sequence, erosion and sedimentation controls, bank stabilization measures, and resource (Land Under Water, Bank, BVW) restoration plans, as well as text (some of which has been provided) regarding compliance with resource area performance standards at both the state and local level. This work has been described in general terms only. The Applicant has proposed Bank restoration that exceeds replacement of the currently ATV-impacted Bank conditions. The details of this Bank restoration work should be provided, both in visual (plans & cross-sections) and in text form, for any Alternative (and some Alternatives may not require a stream crossing) that includes a stream crossing. BSC concurs with the Applicant that the portion of current BVW that is actually ATV-impacted previous Bank, should be restored to Bank, rather than to BVW.

9. Pedestrian Path: Text and Site Plans should specify whether the proposed pedestrian paths are unpaved or paved.

10. Erosion Control, Pollution Prevention Plan, Operation & Maintenance Plan: Comments on these elements of the proposed project are better made when the Alternatives Analysis has been completed and a preferred Alternative has been chosen, as comments on this level of detail are premature until a more definitive Alternative has been identified. However, BSC does recommend that as the Applicant develops further plans for the site, that they incorporate a phased approach to construction sequencing. Given the sandy and erodible nature of some of the soils on the site, a phased construction sequence will be especially important in ensuring effective erosion and sedimentation control. The Applicant is referred to the U.S. Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP).

The Commission should feel free to contact me at (617) 896-4524 (office) or (978) 621-8783 (cell) with any questions regarding this report and this letter report. BSC appreciates the opportunity to be of assistance.

Sincerely,  
BSC Group, Inc.

Gillian T. Davies  
Senior Wetland/Soil Scientist